

REMARKS

Claims 1,5-7,9,13-14, 18, 20 and 24-25 are rejected under 35 USC 103a as being unpatentable over Ota et al., US Patent publication 2003/0099174 in view of Koishi et al., US Patent 4,701,609.

5 The Examiner stated in the Office action mailed 12/05/2006 that paragraph 0050 of Ota et al. discusses “multiplying the output signal from the sample and hold circuit with a proportional constant”, which applicant had added to the independent claims 1, 7, and 18 in the previous response to Office action filed on 11/02/06. The Examiner stated said feature is disclosed by Ota et al. by using the gain of the transfer function of the operational amplifier
10 given by element 66 of figure 12.

 However, applicant respectfully disagrees. In particular, applicant asserts that the feature “multiplying the output signal from the sample and hold circuit with a proportional constant” is not taught or suggested by the reference of Ota et al.

 In contrast to what the Examiner stated, paragraph 0050 by Ota et al. does not teach
15 using the gain of the transfer function of the operation amplifier 66 to multiply the output signal from the sample and hold circuit with a proportional constant. In fact, there is no mention of using the gain of the transfer function of the operation amplifier 66 present in any paragraph of Ota et al. Additionally, this is what paragraph 0050 by Ota et al. states:

20 “A differential amplifier composed of the operational amplifier 66, a resistor R5 and a resistor R6 computes difference between a voltage signal supplied by the peak detecting circuit 5 and the voltage signal held by the sampling holding circuit 65, and supplies a signal 37.” (emphasis added)

 Referencing figure 12 of Ota et al. it is clear that the operational amplifier 66 and the
25 resisters R5 and R6 will not multiply the output of the sampling holding circuit 65 with a proportional constant. The reason is that the output of the sampling and holding circuit 65 is connected to the non-inverting input of the operational amplifier 66 and the output of the peak

detecting circuit 5 is coupled through resistor R5 to the inverting input of the operational amplifier 66. Resistor R6 supplies negative feedback from the output of the operational amplifier 66 to the inverting input terminal of the operational amplifier 66. Due to this negative feedback configuration, the operational amplifier 66 will try to make the difference
5 signal 37 whatever voltage is necessary to make the inverting and non-inverting input voltages equal. And because resistor R5 is coupled to both the output of the peak detecting circuit 5 and the non-inverting input of the operational amplifier 66, the voltage outputted on signal 37 will vary according to the output of the peak detecting circuit 5. This will occur even when the output of the sampling circuit 65 is constant. In this way, it is clear that the
10 operational amplifier 66 taught by Ota et al. is not for multiplying the output of the sampling holding circuit 65 with a proportional constant as is disclosed in Fig.17 of the present invention, for example, and claimed in the currently rejected independent claims 1, 7, and 18.

For at least the reason that Ota does not teach or suggest “multiplying the output signal from the sample and hold circuit with a proportional constant”, applicant asserts that
15 claims 1,5-7,9,13-14, 18, 20 and 24-25 should not be found rejected under 35 USC 103a as being unpatentable over Ota et al. in view of Koishi et al. As claims 2-6, 8-14, and 19-25 are dependent upon claims 1, 7, and 18, respectively, if claims 1, 7, and 18 are found allowable, so too should the dependent claims 2-6, 8-14, and 19-25. Reconsideration of claims 1-14, and 18-25 is respectfully requested.

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Claims 2-4, 10-12, and 21-23 are rejected under 35 USC 103a as being unpatentable over Ota et al. in view of Shiozaki et al., Patent 6,990,050.

As mentioned above, claims 2-4, 10-12, and 21-23 are dependent upon a base claim believed to be allowable by the applicant. Therefore, claims 2-4, 10-12, and 21-23 should also
25 be found allowable for at least the same reasons stated above for the base claims. Reconsideration of claims 2-4, 10-12, and 21-23 is respectfully requested.

Claims 8 and 19 are rejected under 35 USC 103a as being unpatentable over Ota et al.

Appl. No. 10/604,507
Amdt. dated February 14, 2007
Reply to Office action of December 05, 2006

in view of Eguchi et al., US Patent Publication 2002/0036961.

As mentioned above, claims 8 and 19 are dependent upon a base claim believed to be allowable by the applicant. Therefore, claims 8 and 19 should also be found allowable for at least the same reasons stated above for the base claims. Reconsideration of claims 8 and 19 is
5 respectfully requested.

Sincerely yours,



Date: 02/14/2007

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